AMENDMENT

IN THE CLAIMS

Please amend the claims as follows. This listing of claims will replace all prior versions and listings of the claims in the present application.

Claims 1-20. (Cancelled)

21. (New) A method of lowering plasma glucagon in a subject in need thereof, comprising:

identifying a subject in need of therapeutic lowering of plasma glucagon levels; and

administering to said subject a composition comprising a therapeutically effective glucagon lowering amount of an exendin, an exendin analog or combinations thereof;

wherein said exendin and exendin analog each have an amino acid sequence that is more than 30 amino acid residues in length.

22. (New) The method of claim 21, wherein said subject is suffering from necrolytic migratory erythema.

23. (New) The method of claim 21, wherein said subject has a glucagonoma.

24. (New) The method of claim 21, wherein the subject has a diabetes-related disorder.

25. (New) The method of claim 24, wherein the subject has type 2 diabetes.

26. (New) The method of any of claims 21-25, wherein said subject is a human.

27. (New) The method of claim 21, wherein said composition is provided in a dosage unit form without another anti-glucagon agent.

28. (New) The method of claim 21, wherein said composition comprises an exendin analog having an amino acid sequence selected from the sequences of SEQ ID NO: 47 and SEQ ID NO: 48.

29. (New) The method of claim 28, wherein said amino acid sequence has a sequence of SEQ ID NO: 47, wherein the Xaa in position 1 is His; the Xaa in position 2 is Gly; the Xaa in position 6 is Phe or naphthylalanine; the Xaa in position 14 is Leu, pentylglycine or Met; the Xaa in position 22 is Phe or naphthylalanine; the Xaa in position 23 is Ile or Val; the Xaa in position 25 is Phe, Tyr, or naphthylalanine; the Xaa in positions 31, 36, 37, and 38 are independently

selected from Pro, homoproline, thioproline, or N-alkylalanine; and the Xaa in position 39 is Ser or Tyr.

30. (New) The method of claim 28, wherein said amino acid sequence has a sequence of SEQ ID NO: 47, wherein the Xaa in position 14 is Leu or pentylglycine; and the Xaa in position 22 is Phe or naphthylalanine.

31. (New) The method of claim 28, wherein said amino acid sequence has a sequence of SEQ ID NO: 48, wherein the Xaa in positions 6 and 22 are independently selected from Phe or naphthylalanine; the Xaa in position 23 is Ile or Val; and the Xaa in positions 30, 36, 37, and 38 are independently selected from Pro, homoproline, thioproline, or N-alkylalanine.

32. (New) The method of claim 21, wherein said composition comprises exendin-4.

33. (New) A method of lowering plasma glucagon in a subject, comprising:

identifying a subject in need of therapeutic lowering of plasma glucagon levels; and

administering to said subject a composition consisting essentially of a therapeutically glucagon lowering amount of an exendin, an exendin analog or combinations thereof;

wherein said exendin and exendin analog each have an amino acid sequence that is more than 30 amino acid residues in length.

34. (New) The method of claim 33, wherein said subject is suffering from necrolytic migratory erythema.

35. (New) The method of claim 33, wherein said subject has a glucagonoma.

36. (New) The method of claim 33, wherein the subject has a diabetes-related disorder.

37. (New) The method of claim 36, wherein the subject has type 2 diabetes.

38. (New) The method of any of claims 33-37, wherein said subject is a human.

39. (New) The method of claim 33, wherein said composition consists essentially of an exendin analog having an amino acid sequence selected from the sequences of SEQ ID NO: 47 and SEQ ID NO: 48.

40. (New) The method of claim 39, wherein said amino acid sequence has a sequence of SEQ ID NO: 47, wherein the Xaa in position 1 is His; the Xaa in position 2 is Gly; the Xaa in position 6 is Phe or naphthylalanine; the Xaa in position 14 is Leu, pentylglycine or Met; the Xaa

in position 22 is Phe or naphthylalanine; the Xaa in position 23 is Ile or Val; the Xaa in position 25 is Phe, Tyr, or naphthylalanine; the Xaa in positions 31, 36, 37, and 38 are independently selected from Pro, homoproline, thioproline, or N-alkylalanine; and the Xaa in position 39 is Ser or Tyr.

41. (New) The method of claim 39, wherein said amino acid sequence has a sequence of SEQ ID NO: 47, wherein the Xaa in position 14 is Leu or pentylglycine; and the Xaa in position 22 is Phe or naphthylalanine.

42. (New) The method of claim 39, wherein said amino acid sequence has a sequence of SEQ ID NO: 48, wherein the Xaa in positions 6 and 22 are independently selected from Phe or naphthylalanine; the Xaa in position 23 is Ile or Val; and the Xaa in positions 30, 36, 37, and 38 are independently selected from Pro, homoproline, thioproline, or N-alkylalanine.

43. (New) The method of claim 33, wherein said composition consists essentially of exendin-4.